FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

OFFICE OF AIR QUALITY

Meshberger Brothers Stone Corporation
699 South County Road 500 East
Pleasant Mills, Indiana 46733

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

<table>
<tr><td colspan="2">FESOP Renewal No.: F001-14046-00058</td></tr>
<tr><td>Issued by:
Paul Dubenetzky, Branch Chief
Office of Air Quality</td><td>Issuance Date: March 6, 2002</td></tr>
<tr><td colspan="2">Original FESOP: F001-5603-00058, issued on December 4, 1996
First Administrative Amendment: 001-8293, issued on April 1, 1997
Second Administrative Amendment: 001-8322, issued on April 3, 1997</td></tr>
<tr><td>First Significant FESOP Revision: 001-15512</td><td>Pages Affected: 5, 24, 25, 26, 27, 28, 29, 34, 36, 37
Pages Added: 29a, 34a, 34b</td></tr>
<tr><td>Issued by:Original signed by Paul Dubenetzky
Paul Dubenetzky, Branch Chief
Office of Air Quality</td><td>Issuance Date:June 12, 2002</td></tr>
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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary batch hot-mix asphalt plant:

Authorized individual:	Ronald Fryback
Source Address:	699 South County Road 500 East, Pleasant Mills, IN 46733
Mailing Address:	P.O. Box 345, Berne, Indiana 46711
SIC Code:	2951
Source Location Status:	Adams
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) aggregate dryer/mixer with a maximum capacity of 300 tons per hour, having a burner with a maximum heat input rate of 105.5 million British thermal units per hour (mmBtu/hr), exhausting through a baghouse at stack SV1. The dryer is fired by natural gas as the primary fuel and #2 distillate fuel oil as the back-up fuel.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Paved and unpaved roads and parking lots with public access.

(b) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(c) Emission units with PM and PM-10 emissions less than five (5) tons per year, SO_2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:

(1) One (1) material conveying and handling operation.

(2) One (1) 19,430 gallon storage tank ID#12 for liquid asphalt AC-20.

(3) One (1) 19,430 gallon storage tank ID#13 for liquid asphalt AC-20 and asphalt emulsion AE-300.

(4) Two (2) 12,000 gallon storage tank ID#29 and #30 for #2 fuel oil.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) One (1) aggregate dryer/mixer with a maximum capacity of 300 tons per hour, having a burner with a maximum heat input rate of 105.5 million British thermal units per hour (mmBtu/hr), exhausting through a baghouse at stack SV1. The dryer is fired by natural gas as the primary fuel and #2 distillate fuel oil as the back-up fuel.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the aggregate dryer/mixer shall each not exceed 63 pounds per hour when operating at a process weight rate of 600,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The baghouse shall be in operation at all times the aggregate dryer/mixer is in operation, in order to comply with this limit.

D.1.2 Particulate Matter Less Than Ten Microns (PM-10) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, the emissions of PM-10 from the aggregate dryer/mixer shall be limited to 0.067 pounds of PM-10 per ton of asphalt produced. This is equivalent to PM-10 emissions of less than 88 tons per year. The PM-10 emissions for the whole source are therefore limited to less than 99 tons per year. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program), not applicable. Use of the baghouse will ensure compliance with this limit.

D.1.3 Nitrogen Oxide (NOx) and Sulfur Dioxide (SO_2)[326 IAC 2-8-4]

(a) Pursuant to 326 IAC 2-8-4, the total natural gas shall be limited to 707,000,000 cubic feet per twelve consecutive month period, rolled on a monthly basis when used as the only fuel for the aggregate dryer/mixer. This fuel usage shall limit the nitrogen oxide (NOx) emissions to 99 tons per twelve-month period, rolled on a monthly basis.

(b) When #2 fuel oil is used as a back-up fuel to natural gas, each gallon of fuel oil #2 burned shall be equivalent to 85 cubic feet of natural gas.

(c) Pursuant to 326 IAC 2-8-4, the total usage of #2 fuel oil shall be limited to 2,827,900 gallons per twelve consecutive month period, rolled on a monthly basis when used as the only fuel for the aggregate dryer/mixer. This fuel usage shall limit the SO_2 emissions to less than 99 tons per year. The SO_2 emissions for the whole source are limited to less than 99 tons per year.

(d) Compliance with the limit in Condition D.1.3(a), (b) and (c) shall make 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.4 Sulfur Dioxide (SO_2) Emission Limitations [326 IAC 7-1.1-1] [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO_2 emissions from the combustion #2 fuel oil shall not exceed five tenths (0.5) pounds per million Btu heat input.

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

(a) Pursuant to 326 IAC 2-8-4, the VOC solvent used as diluent in the liquid binder used in cold mix asphalt production from the plant shall be limited such that no more than 97.1 tons of VOC emissions emitted per twelve (12) consecutive month period, rolled on a monthly basis. This shall be achieved by limiting the total VOC solvent of any one selected binder to not exceed the stated limit in (c) for that binder during the last twelve (12) months. When more than one binder is used, the formula in (c)(6) must be applied so that the total VOC emitted does not exceed 97.1 tons per twelve (12) consecutive month period, rolled on a monthly basis.

(b) Liquid binders used in the production of cold mix asphalt shall be defined as follows:

(1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.

(2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.

(3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

(4) Emulsified asphalt with solvent, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume

(5) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating

(c) The liquid binder used in cold mix asphalt production shall be limited as follows:

(1) Cutback asphalt rapid cure liquid binder usage shall not exceed 97.1 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(2) Cutback asphalt medium cure liquid binder usage shall not exceed 132 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(3) Cutback asphalt slow cure liquid binder usage shall not exceed 368.9 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(4) Emulsified asphalt with solvent liquid binder usage shall not exceed 198 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(5) Other asphalt with solvent liquid binder shall not exceed 3689.8 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(6) The VOC solvent allotments in subpart (c)(1) through (c)(5) of this condition shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

The equivalent total tons of VOC of the combined liquid binders shall be less than 98.7 tons per twelve (12) consecutive month period rolled on a monthly basis. Compliance with this limit will ensure that 326 IAC 2-7 does not apply.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.1.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 105.5 MMBtu per hour burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.8 Testing Requirements [326 IAC 2-8-4(3)]

The Permittee shall perform PM-10 utilizing methods as approved by the Commissioner to document compliance with Condition D.1.2. This test shall be repeated at least once every five years from the date of the last valid compliance demonstration. PM-10 includes filterable and condensible PM

D.1.9 Particulate Matter (PM)

In order to comply with D.1.1 and D.1.2, the baghouse for PM and PM-10 control shall be in operation and control emissions from the aggregate dryer/mixer and burner at all times that the aggregate dryer/mixer are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.10 Visible Emissions Notations

(a) Visible emission notations of the aggregate dryer/mixer and burner stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.11 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the aggregate dryer/mixer when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.1.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response

steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.1.13 Monitoring of Baghouse Operational Parameters

(a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer/mixer, at least once per shift when the aggregate dryer/mixer is in operation when venting to the atmosphere. When for any one reading the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan **-** Preparation, Implementation, Records, and Reports. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) The Permittee shall record the inlet temperature to the baghouse used in conjunction with the aggregate dryer/mixer, at least once per shift when the aggregate dryer/mixer is in operation when venting to the atmosphere. When for any one reading, the inlet temperature to the baghouse is outside the normal range of 190 and 300 degrees Fahrenheit, except when using cold mix emulsions, then the temperature shall be maintained between 140 and 220 degrees Fahrenheit, the Permittee shall take reasonable response steps in accordance with Section C **-** Compliance Response Plan **-** Preparation , Implementation, Records, and Reports. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.14 Record Keeping Requirements

(a) To document compliance with Conditions D.1.3 and D.1.7, the Permittee shall maintain records in accordance with (1) through (6) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil and natural gas usage since last compliance determination period and equivalent sulfur dioxide and NOx emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

(4) If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(A) Fuel supplier certifications.

(B) The name of the fuel supplier; and

(C) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with Condition D.1.5 Volatile Organic Compounds, VOC records shall document VOC usage as follows:

(1) Amount and type of liquid binder used in the production of cold mix asphalt each day.

(2) Type and VOC, solvent content by weight of the liquid binder used in the production of cold mix asphalt each day.

(3) Amount of VOC, solvent used in the production of cold mix asphalt each day.

Records may include: delivery tickets, manufacturer's data, material safety data sheets (MSDS), and other documents necessary to verify the type and amount used. Test results of ASTM tests for asphalt cutback and asphalt emulsion may be used to document volatilization.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain records of visible emission notations of the hot mix asphalt facility stack exhaust.

(d) To document compliance with Condition D.1.11, the Permittee shall maintain records of the results of the inspections required under Condition D.1.11 and the dates the vents are redirected.

(e) To document compliance with Condition D.1.13, the Permittee shall maintain the following:

(1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure;

(B) Cleaning cycle operation; and

(C) Inlet temperature

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.15 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.3 and D.1.5 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Meshberger Brothers Stone Corporation
Source Address: 699 South County Road 500 East, Pleasant Mills, IN 46733
Mailing Address: P.O. Box 345, Berne, Indiana 46711
FESOP No.: F001-14046-00058
Significant Revision: 001-15512
Facility: Aggregate dryer/mixer
Parameter: NOx emissions
Limit:: 707,000,000 cubic feet of natural gas per twelve consecutive month period, rolled on a monthly basis.

Quarter: _____ Year: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Natural Gas Usage This Month	Natural Gas Usage Previous 11 Months	Natural Gas Usage 12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Meshberger Brothers Stone Corporation
Source Address: 699 South County Road 500 East, Pleasant Mills, IN 46733
Mailing Address: P.O. Box 345, Berne, Indiana 46711
FESOP No.: F001-14046-00058
Significant Revision: 001-15512
Facility: Aggregate dryer/mixer
Parameter: NOx emissions
Limit:: 707,000,000 cubic feet of natural gas per twelve consecutive month period, rolled on a monthly basis.

Quarter: _____ Year: _____

Month	Column 1			Column 2			Column 1+ Column 2		
	Natural Gas Usage (CF This Month)	Fuel Oil # 2 Usage (Gal This Month)	Natural Gas Equivalent (CF This Month)	Natural Gas Usage (CF Past 11 Months)	Fuel Oil # 2 Usage (Gal Past 11 Months)	Natural Gas Equivalent (CF Past 11 Months)	Natural Gas Usage (CF12 Month Total	Fuel Oil # 2 Usage (Gal 12 Month Total	Natural Gas Equivalent (CF 12 Month Total)
Month 1									
Month 2									
Months 3									

Note: For every gallon of fuel oil #2 is equivalent to 85 cubic feet of natural gas.

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Single Liquid Binder Solvent Quarterly Report

Source Name: Meshberger Brothers Stone Corporation
Source Address: 699 South County Road 500 East, Pleasant Mills, IN 46733
Mailing Address: P.O. Box 345, Berne, Indiana 46711
FESOP No.: F001-14046-00058
Significant Revision: 001-15512
Facility: Asphalt Plant
Parameter: VOC
Limit: Cutback asphalt rapid cure liquid binder usage shall not exceed 97.1 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis. Cutback asphalt medium cure liquid binder usage shall not exceed 132 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis. Cutback asphalt slow cure liquid binder usage shall not exceed 368.9 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis. Emulsified asphalt with solvent liquid binder usage shall not exceed 198 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis. Other asphalt with solvent liquid binder shall not exceed 3689.8 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

Quarter: _____ Year: _____

The following liquid binder solvent was the only liquid binder solvent used over the previous 12 month period:_____ Limit applicable:_____
(use of more than one binder requires the use of the "Multiple Liquid Binder Solvents" report form)

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this reporting period.
9 Deviation/s occurred in this reporting period.
Deviation has been reported on: _____

Submitted by: _____ Date:_____
Title / Position: _____
Signature: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
Multiple Liquid Binder Solvent Quarterly Report

Source Name: Meshberger Brothers Stone Corporation
Source Address: 699 South County Road 500 East, Pleasant Mills, IN 46733
Mailing Address: P.O. Box 345, Berne, Indiana 46711
FESOP No.: F001-14046-00058
Significant Revision: 001-15512
Facility: Asphalt Plant
Parameter: VOC
Limit:: 97.1 tons per year

Quarter: _____ Year: _____

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Divisor	VOC emitted This Month (tons) for each solvent	VOC emitted This Month (tons)	VOC emitted Previous 11 Months (tons)	This month + Previous 11 months =VOC emitted 12 Month Total(tons)
Month 1	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 2	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 3	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				

9 No deviation occurred in this reporting period.
9 Deviation/s occurred in this reporting period.
Deviation has been reported on: _____

Submitted by: _____ Date: _____
Title / Position: _____ Phone: _____
Signature: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant FESOP Revision

Source Background and Description

Source Name:	Meshberger Brothers Stone Corporation
Source Location:	699 South County Road, 500 East, Pleasant Mills, IN 46733
County:	Adams
SIC Code:	2951
Operation Permit No.:	F 001-5603-00058
Operation Permit Issuance Date:	December 4, 1996
Significant Permit Revision No.:	001-15512
Permit Reviewer:	Aida De Guzman

The Office of Air Quality (OAQ) has reviewed a revision application from Meshberger Brothers Stone Corporation relating to a change in the FESOP. The source was permitted in the FESOP for fuel oil # 2 as the only fuel used for the aggregate dryer/mixer at the hot-mix asphalt plant. The source proposes to use natural gas as the primary fuel and fuel oil # 2 as the back-up fuel for the following permitted equipment (additions are **bolded** and deletions are ~~struck-through~~ for emphasis):

(a) One (1) aggregate dryer/mixer with a maximum capacity of 300 tons per hour, having a burner with a maximum heat input rate of 105.5 million British thermal units per hour **(mmBtu/hr)**, exhausting through a baghouse at stack SV1. **The dryer is fired by natural gas as the primary fuel and** #2 distillate fuel oil ~~and does not have~~ as the back-up fuel.

History

On April 16, 2002, Meshberger Brothers Stone Corporation submitted an application to the OAQ requesting a change in the fuel usage to their existing plant. The dryer/mixer is capable of burning natural gas and fuel oil #2, but was only permitted for the fuel oil #2. Meshberger Brothers Stone Corporation was issued a Federally Enforceable State Operating Permit (FESOP), F 001-5603-00058 on December 4, 1996, and a FESOP Renewal (F001-14046-00058) was issued on March 6, 2002.

Existing Approvals

The source was issued a FESOP, F 001-5603-00058 on December 4, 1996. The source has since received the following:

(a) FESOP Renewal No.: F001-14046-00058, issued on March 6, 2002;

(b) First Administrative Amendment No.: 001-8293, issued on April 1, 1997; and

(c) Second Administrative Amendment: 001-8322, issued on April 3, 1997.

Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 16, 2002.

Emission Calculations

(a) 105.5 million Btu/hr dryer:

(1) Fuel Oil #2 Combustion Emission (Backup Fuel): Emissions from fuel oil #2 will stay the same at levels determined in the FESOP Renewal. See detailed calculations on Page 2 of 5 TSD Appendix A of the FESOP Renewal. Summary of the emissions are on Table 1 below. The *PM and *PM10 emission factors (Ef) from fuel oil combustion are incorporated in the drying process Ef. Therefore, PM and PM10 emissions stay the same for the natural gas being combusted.

Table 1

Pollutant	SO2	NOX	VOC	CO
Emissions (tons/year)	231.1	79.2	1.1	16.5

(2) Natural Gas Combustion Emission (Primary Fuel):

Table 2

Throughput MMCF/yr)	Emission Factor (lb/MMCF)	Pollutant			
		SO2 (0.6)	NOX (280)	VOC (5.5)	CO (84)
924.2	Emissions (tons/year)	0.3	129.4	2.5	38.8

Methodology:
Potential Throughput (MMCF/yr) = heat input, mmBtu/hr * 8760 hrs/yr * MMCF/1,000 MMBtu
Emission Factors, AP-42 Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC 1-01-006-01, 1-01-006-04 (AP-42 Supplement D 3/98)
Emissions (tons/yr) = throughput, MMCF/yr * Ef, lb/MMCF) * 2,000 lb/ton

(3) Fuel Usage Limitation:

(A) Using Only Fuel Oil #2 as the Fuel - The fuel limit that is in the permit will stay the same at 2,827,900 gallons per year to restrict the SO2 emissions to 99 tons per year.

(B) Using Only Natural Gas as the Fuel -

Natural Gas Limit	=	99 tons NOx/yr * 2000 lb/ton * MMCF/280 lb
	=	707 MMCF/yr
	=	707,000,000 cu ft/yr

(C) Using Combination of Natural Gas & Fuel Oil - The following fuel equivalency limit shall restrict the NOx emissions to less than 100 tons per year when combination of natural gas and fuel oil is used (natural gas with potential emissions of 129.4 tons/yr and fuel oil with potential emissions of 79.2 tons/yr).

Fuel equivalency limit based on NOx

Fuel Oil #2 NOx	=	24 lb/kgal
Natural Gas NOx	=	280 lb/MMCF
24 lb/kgal * MMCF/280 lb	=	0.085 MMCF/kgal
	=	85 cu ft nat. gas /gal #2 fuel oil

For every gallon of fuel oil #2 is equivalent to 85 cubic feet of natural gas.

(D) Limiting the NOx emissions to 99 tons per year will also limit the rest of the pollutants being emitted.

	POLLUTANT			
	SO2	NOX	VOC	CO
EMISSIONS (TONS/YR	0.23	99.0	1.9	29.7

Methodology:
Emissions = Pollutant Pot'l Emissions/NOx Pot'l Emissions * NOx Limit, 99 tons/yr

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
PM	-
PM-10	-
SO_2	0.3
VOC	2.5
CO	38.8
NO_x	129.4

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Justification of the Approval Level

The modification is subject to Significant FESOP Revision, pursuant to 326 IAC 2-8-11.1(f), since the nitrogen oxides (NOx) potential to emit from this modification is greater than twenty-five (25) tons per year.

Actual Emissions

No recent emission data has been received from the source.

Limited Potential to Emit After the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Aggregate Dryer Natural Gas Combustion	*	*	0.23	1.9	29.7	99.0	-
Modification Total PTE	*	*	0.23	1.9	29.7	99.0	-
PSD Threshold Levels	250	250	250	250	250	250	-

Existing Source PTE	122	< 99	< 99	< 99.2	7.1	33.9	
Source PTE After Issuance of the Modification	122	99	99	99			

Note:(1) * see note on Emission Calculation on Page 2 of this TSD.

(a) Existing Source VOC PTE comes from the dryer/mixer at 0.5 ton/yr and 98.7 tons/yr from cold mix cutback asphalt. With the dryer/mixer emissions of 1.9 tons of VOC from natural gas combustion, VOC will be emitted at (98.7 + 1.9) = 100.6 tons/yr, which is greater than 100 tons/yr. Therefore, the cold mix cutback asphalt limit of 98.7 tons/yr will be reduced to 97.1 tons/yr. The cold mix cutback asphalt limit in the FESOP will be adjusted as follows:

(1) Cutback asphalt rapid cure liquid binder usage shall not exceed ~~98.7~~ **97.1** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(2) Cutback asphalt medium cure liquid binder usage shall not exceed ~~134.2~~ **132** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(3) Cutback asphalt slow cure liquid binder usage shall not exceed ~~375.1~~ **368.9** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(4) Emulsified asphalt with solvent liquid binder usage shall not exceed ~~201.3~~ **198** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(5) Other asphalt with solvent liquid binder shall not exceed ~~3,750.6~~ **3689.8** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(6) The VOC solvent allotments in (1) through (5) above shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per

each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

The equivalent total tons of VOC of the combined liquid binders shall be less than ~~98.7~~ **97.1** tons per twelve consecutive month period rolled on a monthly basis.

Methodology:
VOC solvent limit =Total VOC Emission limit, 97.1 tons/yr * Type of Binder adjustment ratio

County Attainment Status

The source is located in Adams County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	not determined

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Adams County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

(a) New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60)

(1) 40 CFR Part 60.90, Subpart I -Standards of Performance for Hot Mix Asphalt Facilities. This NSPS applies to each hot mix asphalt facility, which is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, system for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control system that commences construction or modification after June 11, 1973.

The aggregate dryer/mixer is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart I), because it was constructed in

1967, which is prior to June 11, 1973, the applicability date for this rule.

The proposed Significant Revision does not involve retrofitting or modifying the dryer/mixer to accommodate the use of natural gas. The unit has already the capability to burn natural gas and fuel oil, the FESOP only failed to address both fuel. Therefore, this change does not make the source subject to NSPS.

State Rule Applicability - Entire Source

(a) 326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

(b) 326 IAC 2-8 (Federally Enforceable State Operating Permit)
To avoid the applicability of 326 IAC 2-7 (Part 70 Permit Program), the natural gas usage will be limited to 707,000,000 cubic feet per year, which corresponds to 99 tons of NOx emissions per year.

Compliance Requirements

Permits issued under 326 IAC 2-7are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time

period.

The compliance monitoring requirements applicable to this source are as follows:

Changes to the FESOP

(1) Section A.2 will be revised as follows to incorporate the use of natural gas on the aggregate dryer/mixer:

Section A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) aggregate dryer/mixer with a maximum capacity of 300 tons per hour, having a burner with a maximum heat input rate of 105.5 million British thermal units per hour **(mmBtu/hr)**, exhausting through a baghouse at stack SV1. **The dryer is fired by natural gas as the primary fuel and** #2 distillate fuel oil ~~and does not have~~ as the back-up fuel.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) One (1) aggregate dryer/mixer with a maximum capacity of 300 tons per hour, having a burner with a maximum heat input rate of 105.5 million British thermal units per hour **(mmBtu/hr)**, exhausting through a baghouse at stack SV1. **The dryer is fired by natural gas as the primary fuel and** #2 distillate fuel oil ~~and does not have~~ as the back-up fuel.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.3 **Nitrogen Oxide (NOx) and** Sulfur Dioxide (SO_2)[326 IAC 2-8-4]

(a) **Pursuant to 326 IAC 2-8-4, the total natural gas shall be limited to 707,000,000 cubic feet per twelve consecutive month period, rolled on a monthly basis when used as the only fuel for the aggregate dryer/mixer. This fuel usage shall limit the nitrogen oxide (NOx) emissions to 99 tons per twelve-month period, rolled on a monthly basis.**

(b) **When #2 fuel oil is used as a back-up fuel to natural gas, each gallon of fuel oil #2 burned shall be equivalent to 85 cubic feet of natural gas.**

(c) Pursuant to 326 IAC 2-8-4, the total usage of #2 fuel oil **shall be limited to 2,827,900 gallons per twelve consecutive month period, rolled on a monthly basis when used as the only fuel for the aggregate dryer/mixer.** ~~for the aggregate dryer/mixer shall be limited to 2,827,900 gallons per twelve consecutive month period.~~ This **fuel usage shall limit** ~~is equivalent to~~ **the** SO_2 emissions ~~of~~ **to** less than 99 tons per year. The SO_2 emissions for the whole source are limited to less than 99 tons per year. ~~Compliance with this limit **shall** makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.~~

(d) Compliance with the limit in Condition D.1.3(a), (b) and (c) shall make 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

(a) Pursuant to 326 IAC 2-8-4, the VOC solvent used as diluent in the liquid binder used in cold mix asphalt production from the plant shall be limited such that no more than ~~98.7~~ **97.1** tons of VOC emissions emitted per twelve (12) consecutive month~~s~~ **period, rolled on a monthly basis.** This shall be achieved by limiting the total VOC solvent of any one selected binder to not exceed the stated limit in (c) for that binder during the last twelve (12) months. When more than one binder is used, the formula in (c)(6) must be applied so that the total VOC emitted does not exceed ~~47~~ **97.1** tons per twelve (12) consecutive month period**, rolled on a monthly basis.**

(b) Liquid binders used in the production of cold mix asphalt shall be defined as follows:

(1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.

(2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.

(3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

(4) Emulsified asphalt with solvent, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume

(5) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating

(c) The liquid binder used in cold mix asphalt production shall be limited as follows:

(1) Cutback asphalt rapid cure liquid binder usage shall not exceed ~~98.7~~ **97.1** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(2) Cutback asphalt medium cure liquid binder usage shall not exceed ~~134.2~~ **132** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(3) Cutback asphalt slow cure liquid binder usage shall not exceed ~~375.1~~ **368.9** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(4) Emulsified asphalt with solvent liquid binder usage shall not exceed ~~201.3~~ **198** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(5) Other asphalt with solvent liquid binder shall not exceed ~~3,750.6~~ **3689.8** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

(6) The VOC solvent allotments in (1) through (5) above shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per

each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

The equivalent total tons of VOC of the combined liquid binders shall be less than ~~98.7~~ **97.1** tons per twelve (12) consecutive month period rolled on a monthly basis. Compliance with this limit will ensure that 326 IAC 2-7 does not apply.

D.1.14 Record Keeping Requirements

(a) To document compliance with Conditions D.1.3 and D.1.7, the Permittee shall maintain records in accordance with (1) through (6) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil **and natural gas** usage since last compliance determination period and equivalent sulfur dioxide **and NOx** emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

(4) If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(A) Fuel supplier certifications.

(B) The name of the fuel supplier; and

(C) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with Condition D.1.5 Volatile Organic Compounds, VOC records shall document VOC usage as follows:

(1) Amount and type of liquid binder used in the production of cold mix asphalt each day.

(2) Type and VOC, solvent content by weight of the liquid binder used in the production of cold mix asphalt each day.

(3) Amount of VOC, solvent used in the production of cold mix asphalt each day.

Records may include: delivery tickets, manufacturer's data, material safety data sheets (MSDS), and other documents necessary to verify the type and amount used. Test results of ASTM tests for asphalt cutback and asphalt emulsion may be used to document volatilization.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain records of visible emission notations of the hot mix asphalt facility stack exhaust.

(d) To document compliance with Condition D.1.11, the Permittee shall maintain records of the results of the inspections required under Condition D.1.11 and the dates the vents are redirected.

(e) To document compliance with Condition D.1.13, the Permittee shall maintain the following:

(1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure;

(B) Cleaning cycle operation; and

(C) Inlet temperature

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

2. The following Reporting Forms for the Natural Gas Usage limit and Fuel Oil and Natural Gas Usage equivalency will be added in the FESOP:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: **Meshberger Brothers Stone Corporation**
Source Address: **699 South County Road 500 East, Pleasant Mills, IN 46733**
Mailing Address: **P.O. Box 345, Berne, Indiana 46711**
FESOP No.: **F001-14046-00058**
Significant Revision: **001-15512**
Facility: **Aggregate dryer/mixer**
Parameter: **NOx emissions**
Limit:: **707,000,000 cubic feet of natural gas per twelve consecutive month period, rolled on a monthly basis.**

QUARTER: _____YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Natural Gas Usage This Month	Natural Gas Previous 11 Months	Natural Gas 12 Month Total
Month 1			
Month 2			
Month 3			

9 **No deviation occurred in this quarter.**

9 **Deviation/s occurred in this quarter.**
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: **Meshberger Brothers Stone Corporation**
Source Address: **699 South County Road 500 East, Pleasant Mills, IN 46733**
Mailing Address: **P.O. Box 345, Berne, Indiana 46711**
FESOP No.: **F001-14046-00058**
Significant Revision: **001-15512**
Facility: **Aggregate dryer/mixer**
Parameter: **NOx emissions**
Limit:: **707,000,000 cubic feet of natural gas per twelve consecutive month period, rolled on a monthly basis.**

QUARTER: _____ YEAR: _____

Month	Column 1			Column 2			Column 1+ 2		
	Natural Gas Usage (CF This Month)	Fuel Oil # 2 Usage (Gal This Month)	Natural Gas Equivalent (CF This Month)	Natural Gas Usage (CF Past 11 Months)	Fuel Oil # 2 Usage (Gal Past 11 Months)	Natural Gas Equivalent (CF Past 11 Months)	Natural Gas Equivalent Usage (CF 12 Month Total)	Fuel Oil # 2 Usage (Gal 12 Month Total)	Natural Gas Equivalent (CF 12 Month Total)
Month 1									
Month 2									
Months 3									

Note: For every gallon of fuel oil #2 is equivalent to 85 cubic feet of natural gas.

9 **No deviation occurred in this quarter.**

9 **Deviation/s occurred in this quarter.**
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

3. The following Report Forms will be revised to incorporate the changes in the liquid binder solvent limits.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Single Liquid Binder Solvent Quarterly Report

Source Name: Meshberger Brothers Stone Corporation
Source Address: 699 South County Road 500 East, Pleasant Mills, IN 46733
Mailing Address: P.O. Box 345, Berne, Indiana 46711
FESOP No.: F001-14046-00058
Significant Revision: **001-15512**
Facility: Asphalt Plant
Parameter: VOC
Limit: Cutback asphalt rapid cure liquid binder usage shall not exceed ~~98.7~~ **97.1** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis. Cutback asphalt medium cure liquid binder usage shall not exceed ~~134.2~~ **132** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis. Cutback asphalt slow cure liquid binder usage shall not exceed ~~375.1~~ **368.9** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis. Emulsified asphalt with solvent liquid binder usage shall not exceed ~~201.3~~ **198** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis. Other asphalt with solvent liquid binder shall not exceed ~~3,750.6~~ **3689.8** tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

QUARTER: _____ YEAR: _____

The following liquid binder solvent was the only liquid binder solvent used over the previous 12 month period:_____ Limit applicable:_____
(use of more than one binder requires the use of the "Multiple Liquid Binder Solvents" report form)

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this reporting period.
9 Deviation/s occurred in this reporting period.
Deviation has been reported on: _____

Submitted by: _____ Date:_____
Title / Position: _____
Signature: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
Multiple Liquid Binder Solvent Quarterly Report

Source Name: Meshberger Brothers Stone Corporation
Source Address: 699 South County Road 500 East, Pleasant Mills, IN 46733
Mailing Address: P.O. Box 345, Berne, Indiana 46711
FESOP No.: F001-14046-00058
Significant Revision: 001-15512
Facility: Asphalt Plant
Parameter: VOC
Limit:: ~~98.7~~ **97.1** tons per year

Quarter: _____ Year: _____

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Divisor	VOC emitted This Month (tons) for each solvent	VOC emitted This Month (tons)	VOC emitted Previous 11 Months (tons)	This month + Previous 11 months =VOC emitted 12 Month Total(tons)
Month 1	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 2	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 3	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				

9 No deviation occurred in this reporting period.
9 Deviation/s occurred in this reporting period.
Deviation has been reported on: _____

Submitted by: _____ Date: _____
Title / Position: _____ Phone: _____
Signature: _____

Attach a signed certification to complete this report.

Conclusion

The operation of this hot-mix asphalt plant shall be subject to the conditions of the attached **Significant FESOP Revision No. 001-15512-00058.**

Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBTU/HR >100

Company Name: Meshberger Brothers Stone Corporation
Address City IN Zip: 699 South County Rd., 500 East, Pleasant Mills, IN 46733
Significant Permit Revision: 001-15512
Plt ID: 001-00058
Reviewer: Aida De Guzman
Date Applications Received: April 16, 2002

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
105.5	924.2

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	280.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.9	3.5	0.3	129.4	2.5	38.8

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04
(AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).